

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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JUL 11 2006In re Application of:  
Panchapagesan et al.

Serial No.: 10/666,183

Filed: September 17, 2003

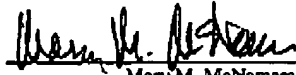
For: GAS BURNER FOR A COOKING  
APPLIANCE§  
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Group Art Unit: 3749

Examiner: Josiah C. Cocks

Atty. Docket: 132351-1

Mail Stop Appeal  
Commissioner for Patents  
P.O. Box 1450  
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7/11/06 Date	 Mary M. McNamara

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

In respect to the Final Office Action of May 11, 2006, Appellants respectfully submit this Pre-Appeal Brief Request for Review. This Request is being filed concurrently with a Notice of Appeal.

In the Final Office Action mailed on May 11, 2006, the Examiner essentially reiterated the rejection formulated in the previous Office Action. Because the Appellants believe that the rejections are improper, the present Appeal has been filed.

The Examiner rejected all of pending claims 1, 2, 4-6, 8, 10 and 12-19 under 35 U.S.C. §103(a). Of these, claims 1, 10 and 12 are independent.

**Rejections Under 35 U.S.C. § 103(a)**

Claims 1, 2, 4, 5, 6, 8 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fafet et al. (US Patent No. 5,931,152, hereinafter "Fafet") in view of

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Maughan (US Patent No. 5,899,681) and Sherman (US Patent No. 2,320,754). Rejected claims 1, and 10 are independent and will be discussed in detail below.

Appellants submit that independent claims 1 and 10 recite, in generally similar language, burner ports configured to restrict flame formation with respect to the positioning of a burner grate integrally formed in a glass cooktop. According to the Specification, the pattern of the burner ports are selected to restrict flame formation in regions proximate the burner grate humps, so that flames from the respective burner ports do not impinge upon the humps of the burner grate.

In the Final Office Action, the Examiner argued that Fafet discloses a burner assembly including a burner grate with a plurality of humps in a glass ceramic cooktop and distributed around an opening and a burner positioned in the opening, where the burner includes an arrangement of burner ports. Further, the Examiner admitted that Fafet does not teach that the burner ports restrict flame formation as a function of non-symmetrical spacing of a plurality of second ports, or a plurality of flame-free portions between the burner ports.

The Examiner relied upon Maughan as teaching first burner ports and second burner ports and contended that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate. Sherman is further relied upon to support this assertion.

Maughan teaches a plurality of burner ports spaced about a sidewall and a plurality of paired ridges disposed on the top surface of the sidewall to define a plurality of carryover slots between opposing ridges. The flow area at the inlet of the carryover slot has a value less than the value of the flow area at the outlet of the carryover slot so as to reduce fuel-air mixture velocity and produce a low velocity, stable carryover flame that

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reduces the tendency of the main flame to lift. (See Maughan, Abstract). In addition, the carryover slot flows prevent a respective carryover flame from completely filling the perimeter of gas burner assembly between primary burner ports and allows adequate secondary air to rise between adjacent main burner flames resulting in reduction of carbon monoxide emissions.

Appellants submit that Maughan does not teach flame restriction through reconfiguration of the burner ports. Rather, Maughan teaches use of additional carryover slots to facilitate combustion at the otherwise unchanged main ports thereby reducing the carbon monoxide emissions. Further, Maughan does not make so much as a mention of a burner grate anywhere in the application let alone teach that the burner ports are configured to restrict the flame formation with respect to a burner grate.

Sherman is cited to support the assertion that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate. However, this statement assumes that it would be obvious for a person recognizing such to reconfigure *the burner ports* to avoid flame impingement. Appellants submit that for someone wishing to reduce flame impingement upon the burner grate it would not be obvious to reconfigure the burner ports as claimed but rather to redesign the burner grate. In fact, although Sherman is cited for teaching a burner design, Sherman actually teaches a unitary burner and grate (see page 2, 2<sup>nd</sup> col., lines 72-74).

In contrast, Appellants respectfully submit that the claimed invention is directed towards reconfiguration of a burner such that the flames from the burner ports do not impinge upon an integrally formed burner grate within a glass cooktop. For at least this reason, Appellants submit it would not be obvious to combine the teachings of Sherman with that of Maughan and Fafet.

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Claims 12-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fafet in view of Riehl and Sherman. Rejected claim 12 is an independent claim and will be discussed in detail below.

Appellants submit that claim 12 recites a system comprising a burner grate and a burner comprising a first plurality of burner ports configured to provide a first unrestricted flame flow out of the burner, and a second plurality of burner ports configured to provide a second restricted flame flow out of the burner based at least in part upon positioning of the burner with respect to the burner grate.

In the Final Office Action, the Examiner cited Fafet for teaching a burner assembly for a cooking appliance including a burner grate with a plurality of humps integrally formed in a glass ceramic cooktop and distributed around an opening and a burner positioned in the opening, where the burner includes an arrangement of burner ports. However, the Examiner admitted that Fafet does not disclose a second plurality of burner ports configured to provide a second restricted flame flow out of the burner based at least in part upon positioning of the burner with respect to the burner grate. Riehl is cited for teaching a burner assembly including a first plurality of burner ports providing an unrestricted flame flow out of the burner and a second plurality of burner ports configured to provide a second modified flame flow and arranged in a modified pattern. The Examiner considers that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate. As support for this assertion, Sherman is again cited.

Appellants respectfully submit that Riehl teaches main burner ports used to create main flames at the burner ports and carryover means for propagating small carryover flames between adjacent sets of ports to the next set of ports. Riehl provides *additional* (carryover) ports between the main ports to facilitate flame flow and improved

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combustion for main burner ports. That is, the main ports are *supplemented* with the additional ports for improving the induction of secondary air to the main ports.

In contrast, the present claimed invention teaches restricting or redirecting the flame flow through reconfiguring the spacing, or orientation of the main burner ports. In particular, the burner ports are configured to restrict the flame formation in a region proximate the burner grate. Riehl does not teach restricted flame flow out of the burner based at least in part upon positioning of the burner with respect to the burner grate. Sherman is again cited to support the assertion that a person of ordinary skill in the art, in selecting burner port spacing, would understand that it is undesirable to include burner ports that cause flames to impinge upon the burner grate.

For at least the reasons set forth above, Appellants submit that it would not be obvious for someone giving the teachings of Fafet, Riehl or Maughan, and Sherman to reconfigure the burner ports as claimed. Thus, the references cannot support a *prima facie* case of obviousness.

For all of the above reasons, Appellants respectfully request that the Panel instruct the Examiner to withdraw the outstanding rejections and allow the pending claims.

Respectfully submitted,

Date: \_\_\_\_\_

7/11/06



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